



**WELCOMING REMARKS
AND
SUMMARY OF MODIS STATUS**



By

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MODIS Science Team Leader**

**MODIS Science Team Meeting
October 31-November 2, 2006**

University of Maryland Inn and Conference Center

MEETING OVERVIEW

- **Your attendance is appreciated.**
 - ~230 people are registered
- **This meeting will include updates on programmatic matters plus presentations describing the many, interesting results that are flowing from the use of MODIS observations**
 - ~20 presentations in plenary
 - ~26 atmospheres presentations
 - ~10 land presentations and results from breakout groups
 - ~13 oceans presentations
 - ~100 posters

OVERALL METRICS as of the end of October 2006

- **Web of Science: 1274 Total refereed MODIS-related publications (1069 during 2001-2006)**
 - 301 so far in 2006**
 - 310 MODIS publications in 2005**
 - 181 MODIS publications in 2004**
- **ISI Proceedings: 936 MODIS-related publications**
 - 137 MODIS publications in 2006**
 - 234 MODIS publications in 2005**
 - 105 MODIS publications in 2004**
- **211 MODIS-related presentations/posters at the 2005 Fall AGU, 186 at the 2004 Fall AGU, 170 at the 2003 Fall AGU**
- **Over 150 Direct Broadcast stations receiving MODIS data with over 800 separate user groups (government, academia, private industry) using these data**

**Representative List of (last two months) Refereed Journals including
MODIS-Related articles**

44 Land-related papers, 21 Atmospheres-related papers, 1 Oceans-related paper, and 3 instrument performance-related papers (total 69)

ECOLOGICAL APPLICATIONS

GEOPHYSICAL RESEARCH LETTERS

EOS, TRANSACTIONS, AMERICAN GEOPHYSICAL UNION

REMOTE SENSING OF ENVIRONMENT

ENVIRONMENTAL MONITORING AND ASSESSMENT

RANGELAND ECOLOGY

PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES

OF THE UNITED STATES OF AMERICA

JOURNAL OF GEOPHYSICAL RESEARCH-ATMOSPHERES

JOURNAL OF GEOPHYSICAL RESEARCH-BIOGEOSCIENCES

JOURNAL OF ARID ENVIRONMENTS

IEEE TRANSACTIONS ON GEOSCIENCE AND REMOTE SENSING

ESTUARINE COASTAL AND SHELF SCIENCE

JOURNAL OF THE ATMOSPHERIC SCIENCES

ATMOSPHERIC CHEMISTRY AND PHYSICS

JOURNAL OF MEDICAL ENTOMOLOGY

APPLIED OPTICS

INTERNATIONAL JOURNAL OF WILDLAND FIRE

JOURNAL OF CLIMATE

ATMOSPHERIC ENVIRONMENT

INSTRUMENT STATUS

- **INSTRUMENTS OPERATIONS ARE NOMINAL**

- NORMAL DEGRADATION OF INSTRUMENTS HAS TO TO BE IS BEING CONTINUALLY MONITORED AND CORRECTION UPDATES COMPUTED FOR LEVEL 1 PRODUCTS.
- UPDATES ARE GENERATED ON A BI-WEEKLY BASIS AND PROVIDED TO MODAPS, ETC.
- SOME INDICATIONS OF AGING INSTRUMENTS IN THE FORM OF NOISY DETECTORS ARE BEING SEEN
 - MOSTLY IN TERRA INFRARED BANDS.
- SPATIAL AND SPECTRAL PERFORMANCE CONTINUES TO BE STABLE ON-ORBIT.
- The SSR issue is to be carried to HQ at the end of the year.
- SBRS support for MODIS may be affected by the shutting down of SBRS and moves to El Segundo/Raytheon offices.

- **MORE DETAILS ON LINE AT MCST WEB PAGES AND AT THE MCST SESSION ON WEDNESDAY 3-5 P.M.**

—SEE Jack Xiong

MODIS DATA OPERATIONS

•DATA PROCESSING:

- MODAPS OPERATIONS ARE PROCEEDING WELL; E.G., COLLECTION 5 REPROCESSING HAS BEEN GOING WELL FOR ATMOSPHERES AND MORE RECENTLY FOR LAND.
- OCDPS DATA PROCESSING IS QUITE ROBUST

•DATA ARCHIVING AND DISTRIBUTION OPERATIONS:

MODAPS HAS BEEN ESTABLISHED AND IS DOING WELL

KUDOS AND APPRECIATION TO GODDARD DAAC (S. KEMPLER, G. ALCOTT, ET AL., FOR THEIR EXPERTISE AND SUPPORT OVER THE YEARS)!

- NSIDC (SNOW AND SEA ICE PRODUCTS)
- LPDAAC (LAND PRODUCTS)
- OCDPS (OCEAN COLOR AND SST)
- MODAPS (ATMOSPHERES PRODUCTS AND LEVEL 1)

- ~8-10 TB OF DATA BEING SENT TO THE “PUBLIC” WEEKLY (4-5 TB EACH FROM MODAPS AND LPDAAC)

MODIS CONTRACTS ADMINISTRATION

- **EVERYONE NEEDS TO GET IN THEIR 533'S AND SEMI-ANNUAL AND ANNUAL REPORTS (THE RECORD IS "SPOTTY.")**
- **IF THERE ARE ANY QUESTIONS ON CONTRACTS, SEE SHANNELL CARDWELL AT THIS MEETING OR CALL HER AT:301-614-6747**

SOME POSSIBLE QUESTIONS THAT MAY BE ASKED IN RELATION TO PROPOSALS TO EXTEND THE TERRA AND AQUA MODIS OPERATIONS

- What new science (processes, trends, etc.) has been discovered so far due to the unique capabilities of MODIS and accompanying data products?
- What new applications have been developed due to the provision of MODIS instrument capabilities and accompanying data products?
- Do any MODIS results say models are wrong or need to be improved to reflect “truth” indicated in MODIS products?
- Do any MODIS results offer ways to improve models?
- Why are two MODIS instruments (one on Terra and the other on Aqua) necessary or important?
 - for science?
 - for applications?
- What new science needs to be or could be done that requires 3 or more years of Aqua and MODIS operations beyond the design life of 5-6 years (i.e. beyond 2008)?
- What new science needs to be or could be done that requires 3 or more years of Terra and MODIS operations beyond the design life of 5-6 years (i.e. beyond 2006)?
- What new scientific objectives can be pursued if the Aqua and Terra missions (including MODIS) are extended 3 years or more (e.g., involving data fusion, data assimilation, etc.)
- How important is it to extend the Aqua and Terra (including MODIS operations) to sustain climate trend studies?
- What applications employing MODIS data will be compromised or discontinued if one of the MODIS operations (e.g., Terra) is terminated or deleted?
- Do the launch slips in NPP and NPOESS clearly call for an extension of the Terra and Aqua MODIS instruments?
- Is it important to stress the continuity of global records represented by observations obtained from the AVHRR to MODIS to the NPP and NPOESS VIIRS? What are the implications in this regard to problems in the development of the VIIRS instrument?
- What savings can be realized (or how large will be the savings) if a MODIS is deleted?
 - for spacecraft/instrument operations?
 - data processing and algorithm checkout/testing, etc.?
 - instrument monitoring/calibration/characterization efforts?

MODIS SCIENCE TEAM MEETING AGENDA

October 31-November 2, 2006

UMUC/Marriott Inn and Conference Center

October 31

- 8:30 A.M. Opening remarks (status of Terra and Aqua missions, MODIS issues, metrics of progress)--V. V. Salomonson
- 8:45 A.M. The MODIS Program Overview, The view from HQ, etc.--P. Bontempi
- 9:15 A.M. Progress and Status of MODIS Atmospheres Products and Processing--M. D. King
- 9:45 A.M. Progress and Status of Ocean Color, SST products from MODIS, SeaWiFS, etc.--C. McClain
- 10:15 A.M. Progress and Status of MODIS Land Products and Collection 5--C. Justice
- 10:45 A.M. Break
- 11:00 A.M. Overview of MODIS Direct Broadcast accomplishments and status --L. Gumley/U of Wisconsin and P. Coronado/GSFC :
- 11:20 A.M. Status NPP and NPOESS, VIIRS, etc.--Jim Gleason/Diane Wickland
- 11:40 A.M. The Senior HQ Review/Mission Extension Process—S. Volz/HQ
- 12:00—2:00 P.M.—Lunch and Poster session
- 2:00 P.M. “MODIS Land Bands for Ocean Remote Sensing: Application to Chesapeake Bay” --B. Franz, et al./NASA/GSFC/SAIC
- 2:30 PM "Interrogating MODIS/AIRS data using HYDRA"--P. Menzel/U. of Wisc.
- 3:00 P.M. “Report on Global Vegetation Workshop in Montana/August 7-10” --S. Running--UMT)
- 3:30 P.M.--Break.
- 3:45 P.M.--Discipline Group Meetings (land, ocean, and atmosphere)
- 5:30 P.M. Adjourn

MODIS SCIENCE TEAM AGENDA (CONT.)

November 1

9:00 A.M.—5:00 P.M.—Parallel Land, Ocean and Atmosphere Discipline Group meetings

12:00 P.M. to 1:00 P.M.—Lunch Speaker/Jack Kaye—NASA Earth Science Overview

3:00 P.M. to 5:00 P.M.---MCST meeting

November 2

8:30 A.M.--MODAPS/LAADS/Goddard DAAC Status, plans, metrics, etc.

8:50 A.M.--OCDPS Status, user support, tools, ordering metrics, etc

9:10 A.M.--NSIDC Status, product ordering metrics, user support, tools, etc.

9:30 A.M.--LPDAAC Status, product ordering metrics, user support, tools, etc

9:50 A.M.--NEO Overview and Status--D. Herring/GSFC

10:10 A.M.--Current Plans for Long-term Archiving of MODIS Data—M. Maiden/HQ

10:30 A.M. Break

10:45 A.M.--Land Discipline Group meeting summary

11:05 A.M.--Oceans Discipline Group meetings summary

11:25 A.M.--Atmospheres Discipline Group meetings summary

11:45 A.M.--Closing comments/guidance--P. Bontempi

12:15 P.M.--Closing comments, tentative plans for next meeting, etc--V. V.
Salomonson

12:30 P.M. MST Adjournment